Use of New Media by Teachers

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ABSTRACT

The development and use of new media in the class emphasizes independent learning based on the activities of the students, constructivist learning and student-centred lessons in general. Using new media in the class does not prompt more efficient learning and teaching in itself, but can initiate the learning processes by didactically shaping the class with regards to student and teacher motivation, previous knowledge, aims, methods and content. Thus, the media changes the role of the teacher, who becomes the organizer of students' independent learning activities. On the other hand, differences have traditionally been seen between teachers from rural (village) and urban (towns/cities) areas. This research was carried out to investigate how often new media are used by elementary school teachers in rural and urban areas (N=158), and what the differences are between those two subgroups of teachers in terms of ownership of new media. The research was conducted in February 2012 by using a questionnaire. The study demonstrates that there is no difference in terms of ownership of any of the new media items relating to the area in which the school is situated (rural or urban). The results show that computers, mobile phones and the internet are owned and used to a greater degree than social media, smart phones and tablet computers. Teachers who work in rural and urban areas use personal computers, the internet and multimedia software in their classes most often, while they do not use tablet computers, smart phones, social networking or mobile phones as frequently. The results show that using new media decreases the traditional differences between teachers from rural and urban areas, which implies that students can learn in classes organized with the help of new media, regardless of where their school is situated.

Keywords: New media, teachers, rural and urban areas, student centred teaching, learning.

I. INTRODUCTION

Over the past few years the media environment in which we live has changed significantly. New media have become a vital part of everyday life. The possibility of receiving and sending information has increased, so that all information has become available to us, communication has become quicker and easier, and the possibility for informal learning exists. Within the new multimedia environment, new possibilities are available for learning, teaching and education. It has been shown that today the new media (mobile phones, computers, the internet, etc.) contribute a great deal to meeting precisely these basic human needs. Therefore, it is the task of schools to guide the development of children and adolescents in that direction. Pupils not only own an increasing quantity of new media, but they have well-developed competences in using them. Pupils see the new media not only simply as digital equipment, but also as a social phenomenon. Today's children are becoming acquainted with the world by using new media every day.

They construct their own realities as they use them. Children come to school with these media and these well-developed competences, but it needs to be asked how far schools recognize this fact when organizing lessons. It is extremely important for each school to provide quality education, regardless where that school is located, whether in a city or a village, a developed or undeveloped area, or a rich or poor neighborhood, as pointed out by Sahlberg (2012), commenting on the Finnish education system. An important role is played here by trained and good quality teachers. Few would argue the importance of our educational system and its role in developing the youth of this country. Education is a critical part of our social structure and while this field, like most others, is constantly changing, the fundamentals of education have perseverance. Nonetheless, throughout the past century we have witnessed a cultural evolution as technology has revolutionized most industries as well as our everyday lives.

What has been often left behind are the critical understandings of such progressions as we as a society have enveloped an attitude of technological reliance. While the field of education has begun to incorporate this new mentality of technological implementation, there are strong connections to the traditional basics and methods that have proved successful. What is shifting, however, are our attitudes towards educations as being systematic and co relational to human development and success outside of the established framework. This social attitude often regards technology as an idealistic glimpse of future possibilities, yet still maintains a somewhat reluctant willingness to completely adopt technological dependence. Although some forms of media and technology are regarded as negative due to their tendency to dehumanize individuals from the social world, the simple placement of ‘educational’ as a prefix of this term creates a sense
of comfort and acceptance for many. This attitude could be argued as being generational, or perhaps we are seeing the evolution of education and teaching. In either case, our endless reliance of these tools has supplanted their secondary role and has anointed them as primary sources of educational material.

Chapter One provides an overview of past research and literature, relevant statistics, and applicable definitions of key terms. The themes that will be highlighted within this chapter include an analysis of the classroom itself and the current and changing role of the teacher/educator. Chapter Two presents a detailed look at the individual challenges and pressures associated with this situation. This section will provide further details exploring the pressures that educators face regarding the incorporation of educational technology as well as present challenges facing teachers. The pressures have been separated into three tangible sections - Institutional, Professional, and Social pressures - all of which are influential in understanding the current and future role of the student teacher. Chapter Three expands upon the larger analysis and critiques of others and introduces some of the core factors that surround this issue.

Chapter Four offers a discussion of the method used for collecting the primary data from the fieldwork, which will be used for analysis. In addition, this section will offer some background statistics and information on the state of Minnesota and its educational system. Moreover, this chapter will look for commonalities and differences among technology uses by some of the educators from this region. Chapter Five serves as the data analysis chapter and will present the fieldwork and examine the collected data to provide a summary of the findings, both statistical as well as qualitative. This chapter will also highlight some of the individual perspectives and opinions from those teachers and administrators involved. Finally, Chapter Six works to tie everything together. In addition to conclusions, this chapter will also present a discussion of the implications of this project and of potential directions for future study.

2: LITERATURE REVIEW

The nature and constant evolution of new media make it challenging to describe and define. Social scientists have identified four specific categories of new media that share common qualities and likenesses: interpersonal communication media, interactive play media, information search media, and collective participatory media. Interpersonal communication media encompasses the telephone (cell phones included) and email (McQuail, 2005). These types of communication technologies are thought of as private and temporary. The relationships reinforced and established by use of such interpersonal communication are more important than the information communicated. Interactive play media include computer and video games. Information search media encompass a broad spectrum such as the Internet and all the search engines and search tools. Cell phones are becoming capable of similar functions and can be listed under this category. Finally, collective participatory media refer to how one can use the Internet for purposes such as swapping information, ideas and thoughts, and creating computer-mediated relationships (McQuail, 2005). For the purpose of this study, new media will include computers, the Internet, and cell phones.

A Perspective on New Media

Today’s students came of age with computers, the Internet, and other new media technologies. McMillan and Morrison (2006), who studied new media use of college students, found that —participants described older siblings as less adept at using interactive technologies, while younger siblings were often described as far ahead of participants in their use of the technologies (p. 89). Striking a balance between using new media and technology with the off and online world are crucial. Young adults may feel overwhelmed by all that is available and at their fingertips. Discerning good information from bad or fact from fiction can be hard to determine on the World Wide Web where answers are everywhere. Education about how to utilize and to get the most from new media is imperative for adolescents growing up in this technological era (McMillan & Morrison, 2006).

Parental Worry and Roles

Parents may worry about the dangers and risk of online predators associated with computer use and the Internet. Privacy becomes an issue. Families interact, live, and spend much of their time at home. There can be very little privacy in this fairly open space. A computer in the home can create individual worlds for all members of the family. Lenhart et al. (2008) found that the location in the home where adolescents connect to the Internet can influence the quality of their online time: —Factors that vary by location such as connection speed, hours of operation, and the presence of Internet filters and other safety features often impact how long teens can spend online. . . (p. 16). Users of computers and the Internet may create unique identities or at least communicate with others in a way that is not visible to or heard by siblings and parents. Early studies showed Internet usage is sometimes linked to less time spent with family members (Hughes & Hans, 2001). There is a shift from viewing the home as a shared experience to one that is individualized. Each member still interacts with other family members but through a web of intersecting spaces and timetables as Livingstone (2006) noted:

The Internet and new media may help facilitate and foster better relationships because both parents and adolescents can have their own space in which to thrive as individuals. This could suggest that, because of this, they are then able to interact as a family on a deeper level. Adolescents may find their parents not as adept at computer skills as their siblings
or peers. They may be less likely to ask parents for help with computer-related questions. In contrast, Subrahmanyam et al. (2000) found that, because parents are often less skilled with the latest computer and Internet tools, children become technology teachers to parents in a complete role reversal. This suggests a positive relationship between communication within the home and new media. If children can help parents in this way, it gives them a sense of importance and increases interpersonal communication.

Subramaniam et al. (2000) noted that —much of children’s ‘alone time’ on computers appears actually to be spent extending social relationships by connecting with others through interpersonal communication applications via the Internet (p. 131). Valentine and Holloway (2002) confirmed that online activities do not necessarily take time away from offline ones, but rather are incorporated into them. Brown, Mounts, Lamborn, and Steinberg (1993) wrote:

3. METHODOLOGY

Instructional technology has been shown to have positive impact on teaching and learning in classrooms (Baylor and Ritchie, 2002). However little is known about the use of instructional technology in teacher education in Malawi. For this study, instructional technologies were defined as all the materials and equipment that are used to enhance the teaching and learning process, specifically chalkboards, flip charts, locally available resources, overhead projectors, videos, and computers. The purpose of this study was to survey tutors in the teacher training colleges to determine what instructional technologies were available in the teacher training colleges, what technologies tutors used in their teaching, and problems tutors encountered during lesson delivery in relation to the use of instructional technologies, such as availability and accessibility of the technologies, and the tutors’ perceived competence in using the technologies. These data provided a basis for making recommendations on what needs to be put in place to enhance the use of the instructional technologies in teacher training colleges.

The following research questions guided the investigation:

1. How often did tutors use instructional technologies in their teaching?
2. What reasons did tutors have for not using technologies in their teaching?
3. How did college tutors perceive their competence levels in using instructional technologies?
4. What attitudes did college tutors have towards use of instructional technologies?
5. What did tutors consider important factors in influencing their use of instructional technologies?

Additionally, Domasi College of Education served as the basis for a snapshot study that described its experience in introducing the use of computers at the college. This chapter explains the procedure for both the survey methodology and the snapshot study methodology. The survey methodology is organized in five sections: the survey population and sample selection; the survey instrument, which describes the format and construction of the survey, the rating scale used, and validity and reliability; pilot testing of the survey; data collection through the inventory and survey data; and data analysis procedures.

The snapshot study methodology is organized in four sections: faculty and student interviews, class observations, staff survey, and data analysis procedures. Gaining access to do the study involved first writing a letter to the Ministry of Education (see Appendix B) asking for permission to conduct research in all teacher training colleges and Domasi College of Education. The letter was also copied to all principals of the institutions. When permission was granted by the Ministry of Education, principals of the institutions and the participants from each of the teacher training colleges and participants from Domasi College of Education were personally contacted. All the participants agreed to participate by signing the consent form (see Appendix C).

The population for the survey was derived from the six teacher training colleges in Malawi; however, Kasungu Teachers College was used for pilot-testing the survey instrument. The actual survey population came from the five other teacher training colleges; namely Blantyre Teachers College, Karonga Teachers College, Lilongwe Teachers College, Montfort Teachers College, and St. Joseph’s Teachers College. All tutors in the five teacher training colleges were eligible to participate in the survey. Table 1 shows the number of tutors per college, number of tutors who participated, and the participation percentage. There was a high participation percentage (84.2%) for the survey because the instrument was delivered and administered in the colleges in person by the researcher. The fifteen tutors who did not participate were those who were actually out of the college for various reasons when the questionnaire was being administered.

Table: 1: Survey participation percentage
**4. DISCUSSION**

From the results it is clear that there is no difference in terms of ownership of individual forms of new media between teachers who work in schools in rural and urban areas. In other words, they own certain forms of new media equally, in contrast to the results of earlier research (McCracken & Barcinas, 1991; Trentham & Schaer, 1985), which indicated traditional differences between teachers and pupils from rural and urban areas. On the other hand, although there is no difference in ownership of some forms of media, these results show some differences in relation to individual forms of media. Both subgroups, teachers from rural areas and urban areas, own some forms of new media more than some others. So it was shown that the largest number own a computer, mobile phones, internet access and multimedia software. Somewhat fewer of them have a profile open on a social network, whilst very few of them, almost no one, own a smartphone or a tablet computer.

This may be explained by the fact that computers, mobile phones, the internet and multimedia software have become important in everyday life, but also because they are more accessible in financial terms. On the other hand, tablet computers, smartphones and social networks are considered to be relatively new, but also financially inaccessible due to their high price on the market. It is possible that younger teachers have social network profiles to a greater extent than their older colleagues. Further, it was shown that all teachers who work in rural or urban areas equally often use individual forms of new media in lessons. Of course, it must be said that they use some new media more often than others. Computers, multimedia software and the internet are used significantly more often in lessons, whilst mobile phones, tablet computers, smartphones and social networks are used much less frequently. These results should be interpreted with caution since this is a question of the use of new media in lessons.

Therefore, it is emphasized that simply using new media in lessons does not mean more effective teaching or learning (Tamin et al. 2011). Accordingly, teaching without new media, which is organized well in a didactic sense, may also prompt the learning process in pupils. An example of this is the pedagogy of Rudolf Steiner and Waldorf schools, which use media extremely little in their teaching, but this does not indicate poorer outcomes or lower pupil satisfaction. This pedagogical concept would be the same if the school was located in a village or in a town. In fact, this contributes to didactic and pedagogic pluralism in education. Of course, whilst recognizing the characteristics of the use of new media in the teaching presented above, we can notice from the results that some media are both owned and used to a greater extent.

**Discussion of the Findings**

“The issue of quality education remains crucial in the Malawi education system” (Commonwealth Education Fund, 2003, p. 5). Malawi is still struggling in its education system to improve the quality of education. One of the contributing factors is the lack of educational resources. The use of instructional technologies has proved important because the technologies facilitate the teaching and learning process. In a survey, to find factors that facilitate teacher skill, teacher morale, and perceived student learning in technology-using classrooms, Baylor and Ritchie (2002) found that teachers valued the use of technologies in class and that it had a positive impact on students’ content acquisition and class performance. In addition, as the tutors use these technologies in their teaching, they are at the same time acting as role models to their student teachers, who will in turn emulate the practice and use instructional technologies in their own classes.

However, despite instructional technologies having an impact on the teaching and learning process, data in this study have revealed that tutors in the teacher training colleges (T.T.Cs) use more of the chalkboard and local resources in their teaching than any other instructional technologies. On the other hand, although the use of local resources was rated...
high, the tutors indicated that “the local resources require too much time to produce.” This is sending a strong signal that even the local resources were not used as much as would be expected. This finding clearly shows that tutors are dependent on chalk and talk in their instruction while student teachers listen. Baylor and Ritchie (2002) called such instruction a traditional method focusing on imparting skills and knowledge rather than “… [preparing] our students for a life that will be drastically different … [a life that will] need students to become creative problem-solvers, able to analyze a wealth of information to draw valid conclusions” (p. 400) when a variety of instructional technologies are used. The inventory of technologies at the teacher training colleges showed that the availability of adequate supplies of technologies was uneven, while the most basic technologies like chalkboards were typically available. Shortages and/or no supplies were found with flip charts, videos, overhead projectors, and computers.

**CONCLUSION**

The successful integration of new media in teaching and more successful learning depend on the didactic organization of the teaching process using new media, in view of the aims, content, methods, individual characteristics of pupils, but also the attitudes and abilities of the teachers in using new media in lessons. The teacher, in that form of teaching, is the organizer of activities, where the pupils, through their work, resolve problems, and construct their own knowledge through cooperation. Studies from thirty years ago showed differences between teachers in schools from urban and rural areas. In this study, the results show that there is no difference in terms of ownership of individual forms of new media between teachers who work in schools in rural and urban areas. Both groups of teachers own each form of media to an equal extent. Computers, internet access and mobile phones are new media which are owned by the largest number of teachers.

In contrast, the fewest teachers own a tablet computer. Further, it was shown that all teachers who work in rural or urban areas use individual forms of new media equally often. When teaching, teachers most often use computers, multimedia software and the internet, whilst tablet computers and smart phones are used least in lessons. However, it has to be mentioned that teachers do not use all media equally: computers, multimedia software and the internet are used more often in lessons than the other new media. In other words, to a certain extent it is possible to say that new media reduce the traditional differences between teachers/schools in rural and urban areas. However, it is necessary to point out that a digital divide exists at a global level between developed and undeveloped countries. Therefore, students at teaching and education faculties (future teachers) should learn how to teach pupils using new media, that is, they should study multimedia didactics (Issing 1994; Matijević 2008). In this way, teachers would know how to successfully organize teaching activities with new media.

**REFERENCES**


